

Plasma S100P and hyaluronic acid (HA): markers for metastatic breast cancer (P-1157)

Keywords

- Discrimination between metastatic and non-metastatic breast cancer ACU of ROC curve = 0.85
- More accurate prediction of progression-free and overall survival than presence of CTCs
- More accurate prediction of treatment response than presence of CTCs
- Marker for diagnostic, prognostic and treatment monitoring of metastatic breast cancer

Abstract

The present invention comprises the use of two serum/plasma markers, in combination or alone, for stage discrimination and prediction of survival as well as treatment response in breast cancer patients. Test statistics show that these markers perform better than established ones like the number of circulating tumor cells (CTCs).

Development Stage

Marker approved and verified in studies of 320 (S100P in combination with HA) and 334 (HA only) patients with different disease stages.

The Technology

Common ELISA technology has been used for detection of hyaluronic acid and S100P in plasma of breast cancer patients.

Applications and Commercial Opportunity

DKFZ is looking for a commercial partner to establish the test in a routine clinical setting.

Inventors

The investigators are:

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Intellectual Property

A European patent application has been filed April 16th in 2014 "New Biomarkers for metastatic breast cancer" with the number EP 1416486 5.9

Further Information

No other public information is currently available, but further information (speaking with the

inventor) is available under a signed Confidential Disclosure Agreement (CDA).

Publication

S100P and HYAL2 as prognostic markers for patients with triple-negative breast cancer. Maierthaler M et al.

[Exp Mol Pathol. 2015 Aug;99\(1\):180-7](#)

Plasma Hyaluronic Acid level as a Prognostic and Monitoring Marker of Metastatic Breast Cancer. Peng et al.

[Int J Cancer. 2015 Dec 19](#)

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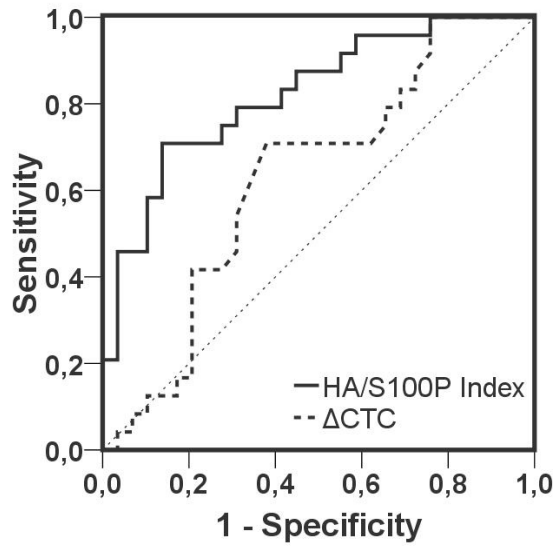
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Figure:



ROC analysis of plasma HA in combination with S100P level changes indicating treatment outcome of metastatic breast cancer patients.

$AUC_{\Delta S100P/HA} = 0.82$; $AUC_{\Delta CTC} = 0.63$